

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP01/03288

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> C12N15/12, C07K16/18, C12P21/08, C12N1/15, 1/19, 1/21, 5/00, A61K39/395, A61P35/00, 29/00, 7/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> C12N15/12, C07K16/18, C12P21/08, C12N1/15, 1/19, 1/21, 5/00, A61K39/395, A61P35/00, 29/00, 7/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CAPLUS/MEDLINE/BIOSIS (STN),  
Genbank/EMBL/DDBJ/GeneSeq,  
SwissProt/PIR/Geneseq

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	WO, 00/53634, A1 (Chugai Seiyaku Kabushiki Kaisha), 14 September, 2000 (14.09.00), Claims; Figs. 4-6; example 5 (Family: none)	1-8, 11-19
X Y	WO, 99/12973, A1 (Chugai Seiyaku Kabushiki Kaisha), 18 March, 1999 (18.03.99), Figs. 23, 24, 27-29; examples 4, 5 & AU, 9890028, A1 & JP, 11-155569, A & EP, 1035132, A1	1, 2, 6-8, 11-17 3-5, 8-10, 18, 19
X Y	Mateo, V et al., "CD 47 ligation induces caspase-independent cell death in chronic lymphocytic leukemia", Nature Medicine (November 1999), Vol. 5, No. 11, pp. 1277-84 abstract; page 1279, left column, line 6 to right column, line 3; Fig. 3	1, 2, 6-8, 11-17 3-5, 9-10, 18, 19
Y	Pettersen, R.D. et al., "CD47 signals T cell death", J. Immunol. (15 June 1999), Vol. 162, No. 12, pp. 7031-40 abstract, page 7032, right column, Par. No. 2 to page 7033, left column, Par. No. 1	1-8, 11-19

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:  
"A" document defining the general state of the art which is not  
considered to be of particular relevance  
"E" earlier document but published on or after the international filing  
date  
"L" document which may throw doubts on priority claim(s) or which is  
cited to establish the publication date of another citation or other  
special reason (as specified)  
"O" document referring to an oral disclosure, use, exhibition or other  
means  
"P" document published prior to the international filing date but later  
than the priority date claimed

"T" later document published after the international filing date or  
priority date and not in conflict with the application but cited to  
understand the principle or theory underlying the invention  
"X" document of particular relevance; the claimed invention cannot be  
considered novel or cannot be considered to involve an inventive  
step when the document is taken alone  
"Y" document of particular relevance; the claimed invention cannot be  
considered to involve an inventive step when the document is  
combined with one or more other such documents, such  
combination being obvious to a person skilled in the art  
"&" document member of the same patent family

Date of the actual completion of the international search  
04 June, 2001 (04.06.01)

Date of mailing of the international search report  
12 June, 2001 (12.06.01)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP01/03288

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US, 4946778, A (Genex Corp.), 07 August, 1990 (07.08.90), Full text & US, 5260203, A & US, 5455030, A & US, 5869620, A & US, 5518889, A & US, 5534621, A	1-8,11-19
X Y	Rozsnyay, Z. et al., " Phenylarsine oxide (PAO) blocks antigen receptor-induced calcium response and tyrosine phosphorylation of a distinct group of proteins", Immunology Lett. (August 1993), Vol. 37, Nos. 2-3, pp 197-205, abstract	1,2,6-8,11-17 3-5,18,19
X Y	Bazzoni, F et al., "Chimeric tumor necrosis factor receptors with constitutive signaling activity", Proc. Natl. Acad. Sci. USA (06 June, 1995), Vol. 92, No. 12, pp. 5376-80, abstract	1,2,6-17 3-5,18,19
X Y	Gell, M. et al., "TR60 and TR80 tumor necrosis factor (TNF)-receptors can independently mediate cytolysis", Lymphokine and Cytokine Research (June 1993), Vol. 12, No. 3, pp.143-8	1,2,6-17 3-5,18,19
X Y	O'Brien, Richard M. et al., "Monoclonal antibodies for the human insulin receptor stimulate intrinsic receptor-kinase activity", Biochem. Soc. Trans. (1986), Vol. 14, No.6, pp. 1021-3, Full text	1,2,6-17 3-5,18,19
X Y	Yarden, Y. and Schlessinger, J., "Self-phosphorylation of epidermal growth factor receptor: evidence for a model of intermolecular allosteric activation", Biochemistry (1987), Vol. 26, No. 5, pp. 1434-42, abstract	1,2,6-17 3-5,18,19
A	Yanabu, M. et al., "Tyrosine phosphorylation and p72syk activation by an anti-glycoprotein Ib monoclonal antibody", Blood (1997), Vol. 89, No.5, pp.1590-1598, abstract	1-19

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International application No.

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## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 20-22  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Claims 20 to 22 substantially involve methods for treatment of the human body by therapy and thus relate to a subject matter which this International Searching Authority is not required, under the provisions of Article 17(2)(a)(i) of the PCT and Rule 39.1(iv) of the Regulations under the PCT, to search.
2. ☒ Claims Nos.: a parts of Claims 1-19  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
  
See extra sheet.
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

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- Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

OFFICE OF PETITIONS

INTERNATIONAL SEARCH REPORT

International application No.

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Continuation of Box No. I-2 of continuation of first sheet (1)

Neither the description nor the flexible disc submitted discloses the base sequences and amino acid sequences of SEQ ID NOS:73 to 84 concerning the production of the reconstituted 12B5 single-stranded Fv stated in the description.

Thus, the inventions relating to the reconstituted 12B5 single-stranded Fv and a process for producing the same fail to satisfy the requirements to such an extent as enabling the performance of any meaningful international search. Thus no international search report is made under the provisions of Article 17(2)(a)(ii) of the PCT.

## A. 発明の属する分野の分類 (国際特許分類 (IPC))

Int. Cl<sup>7</sup> C12N15/12, C07K16/18, C12P21/08, C12N1/15, 1/19, 1/21, 5/00, A61K39/395, A61P35/00, 29/00, 7/00

## B. 調査を行った分野

調査を行った最小限資料 (国際特許分類 (IPC))

Int. Cl<sup>7</sup> C12N15/12, C07K16/18, C12P21/08, C12N1/15, 1/19, 1/21, 5/00, A61K39/395, A61P35/00, 29/00, 7/00

最小限資料以外の資料で調査を行った分野に含まれるもの

国際調査で使用した電子データベース (データベースの名称、調査に使用した用語)

CAPLUS/MEDLINE/BIOSIS (STN),  
Genbank/EMBL/DDBJ/GenSeq,  
SwissProt/PIR/Geneseq

## C. 関連すると認められる文献

引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
PX	WO, 00/53634, A1 (Chugai Seiyaku Kabushiki Kaisha), 14.9月.2000 (14.09.00), 請求の範囲, 図4-6, 実施例5参照, ファミリーなし	1-8, 11-19
X	WO, 99/12973, A1 (Chugai Seiyaku Kabushiki Kaisha), 18.3月.1999 (18.03.99), 図23, 24, 27-29, 実施例4, 5参照	1, 2, 6-8, 11-17
-		—
Y	& AU, 9890028, A1 & JP, 11-155569, A & EP, 1035132, A1	3-5, 9-10, 18, 19

☒ C欄の続きにも文献が列挙されている。☐ パテントファミリーに関する別紙を参照。

## \* 引用文献のカテゴリー

「A」特に関連のある文献ではなく、一般的技術水準を示すもの

「E」国際出願日前の出願または特許であるが、国際出願日以後に公表されたもの

「L」優先権主張に疑義を提起する文献又は他の文献の発行日若しくは他の特別な理由を確立するために引用する文献 (理由を付す)

「O」口頭による開示、使用、展示等に言及する文献

「P」国際出願日前で、かつ優先権の主張の基礎となる出願

の日の後に公表された文献

「T」国際出願日又は優先日後に公表された文献であって出願と矛盾するものではなく、発明の原理又は理論の理解のために引用するもの

「X」特に関連のある文献であって、当該文献のみで発明の新規性又は進歩性がないと考えられるもの

「Y」特に関連のある文献であって、当該文献と他の1以上の文献との、当業者にとって自明である組合せによって進歩性がないと考えられるもの

「&amp;」同一パテントファミリー文献

国際調査を完了した日

04.06.01

国際調査報告の発送日

12.06.01

国際調査機関の名称及びあて先

日本国特許庁 (ISA/JP)

郵便番号100-8915

東京都千代田区蔵が関三丁目4番3号

特許庁審査官 (権限のある職員)

新留 豊



4B

9639

電話番号 03-3581-1101 内線 3448

C (続き) 関連すると認められる文献		
引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
X — Y	Mateo, V. et al., 'CD47 ligation induces caspase-independent cell death in chronic lymphocytic leukemia' Nature Medicine (1999 Nov), Vol. 5, No. 11, pp. 1277-84 要約, 第1279頁左欄第6行—右欄第3行, 図3参照	1, 2, 6-8, 11-17 — 3-5, 9-10, 18, 19
Y	Pettersen, R. D. et al., 'CD47 signals T cell death' J. Immunol. (1999 Jun 15) Vol. 162, No. 12, pp. 7031-40 要約, 第7032頁右欄第2段落—第7033頁左欄第1段落参照	1-8, 11-19
Y	US, 4946778, A (Genex Corp.), 7. 8月. 1990 (07. 08. 90), 全文参照 & US, 5260203, A & US, 5455030, A & US, 5869620, A & US, 5518889, A & US, 5534621, A	1-8, 11-19
X — Y	Rozsnyay, Z. et al., 'Phenylarsine oxide (PAO) blocks antigen receptor-induced calcium response and tyrosine phosphorylation of a distinct group of proteins' Immunology Lett. (1993 Aug), Vol. 37, No. 2-3, pp. 197-205, 要約参照	1, 2, 6-8, 11-17 — 3-5, 9-10, 18, 19
X — Y	Bazzoni, F. et al., 'Chimeric tumor necrosis factor receptors with constitutive signaling activity' Proc. Natl. Acad. Sci. USA (1995 Jun 6), Vol. 92, No. 12, pp. 5376-80, 要約参照	1, 2, 6-17 — 3-5, 18, 19
X — Y	Grell, M. et al., 'TR60 and TR80 tumor necrosis factor (TNF) -receptors can independently mediate cytolysis' Lymphokine and Cytokine Research (1993 Jun), Vol. 12, No. 3, pp. 143-8, 要約参照	1, 2, 6-17 — 3-5, 18, 19
X — Y	O'Brien, Richard M. et al., 'Monoclonal antibodies for the human insulin receptor stimulate intrinsic receptor-kinase activity' Biochem. Soc. Trans. (1986), Vol. 14, No. 6, pp. 1021-3, 全文参照	1, 2, 6-17 — 3-5, 18, 19
X — Y	Yarden, Y. and Schlessinger, J., 'Self-phosphorylation of epidermal growth factor receptor: evidence for a model of intermolecular allosteric activation' Biochemistry (1987), Vol. 26, No. 5, pp. 1434-42, 要約参照	1, 2, 6-17 — 3-5, 18, 19
A	Yanabu, M. et al., 'Tyrosine phosphorylation and p72syk activation by an anti-glycoprotein Ib monoclonal antibody' Blood (1997), Vol. 89, No. 5, pp. 1590-1598, 要約参照	1-19

法第8条第3項（PCT17条(2)(a)）の規定により、この国際調査報告は次の理由により請求の範囲の一部について作成しなかった。

- 別紙参照

- 様式PCT/ISA/210 (第1ページの続業 (1)) (1998年7月)

## 第 I 欄 2. について

明細書中の再構成 1 2 B 5 一本鎖 F v の製造に関連する、配列番号 : 7 3 - 8 4 の塩基配列及びアミノ酸配列が明細書に記載されておらず、提出されたフレキシブルディスクにも記録されていない。

よって、再構成 1 2 B 5 一本鎖 F v 及びその製造に関連する発明は、有意義な国際調査をすることができる程度まで所定の要件を満たしておらず、PCT 17 条 (2) (a) (i) の規定により国際調査報告を作成しない。